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| APPLICATION NO.   | FILING DATE    | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|----------------|-------------------------|-------------------------|------------------|
| 09/776,984  | 02/05/2001     | James Allen Ponasik,Jr. | 32887.205225            | 7664             |
| 75  | 590 12/05/2002 |                         |                         |                  |
| Kilpatrick Stockton LLP Bernard J. Graves, Jr., Esquire 3500 One First Union Center 301 South College Street Charlotte, NC 28202-6001 |                |                         | EXAMINER                |                  |
|   |                |                         | RABAGO, ROBERTO         |                  |
|   |                |                         | ART UNIT                | PAPER NUMBER     |
| ,   |                |                         | 1713                    | <u></u>          |
|   |                |                         | DATE MAILED: 12/05/2002 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.         | Applicant(s)   |  |  |  |
|---|-------------------------|--|--|--|--|
| •   | 09/776,984              | PONASIK,JR. ET AL.                                       |  |  |  |
| <ul> <li>Office Action Summary</li> </ul>   | Examin r                | Art Unit   |  |  |  |
|   | Rob Rábago              | 1713   |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |                         |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |                         |  |  |  |  |
| 1) Responsive to communication(s) filed on  | <u> </u>                |  |  |  |  |
|   | is action is non-final. |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims   |                         |  |  |  |  |
| 4)⊠ Claim(s) <u>1-23</u> is/are pending in the application.   |                         |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                         |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                         |  |  |  |  |
| 6)⊠ Claim(s) <u>1-4,13-16,18,20 and 22</u> is/are rejected.   |                         |  |  |  |  |
| 7)  Claim(s) <u>5-12,17,19,21 and 23</u> is/are objected to.  |                         |  |  |  |  |
| 8) Claim(s) are subject to restriction and/o  | r election requirement. |  |  |  |  |
| Application Papers  |                         |  |  |  |  |
| 9)⊠ The specification is objected to by the Examine   |                         |  |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accept   |                         |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |                         |  |  |  |  |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  |                         |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                         |  |  |  |  |
| 12)☐ The oath or declaration is objected to by the Examiner.  |                         |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                         |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                         |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  |                         |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |                         |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |                         |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |                         |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                         |  |  |  |  |
| a) ☐ The translation of the foreign language provisional application has been received.  15)☑ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |                         |  |  |  |  |
| Attachment(s)   |                         |  |  |  |  |
| <ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5</li> </ol>  | 5) Notice of Informal   | ry (PTO-413) Paper No(s)<br>Patent Application (PTO-152) |  |  |  |
| LS Patent and Trademark Office  |                         |  |  |  |  |

Art Unit: 1713

#### **DETAILED ACTION**

#### Information Disclosure Statement

1. The information disclosure statement filed 2/5/01 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the lined-through references have not been considered. Applicants have not supplied any reference copies, and have asserted that copies of all references cited were provided in parent application 09/222,614. However, review of 09/222,614 reveals this assertion to be incorrect, and only five reference citations have been printed on the face of the patent. As a courtesy to applicants, all of the US and most of the foreign references have been retrieved electronically and considered. However, applicants must provide copies of the remaining references if consideration thereof is still desired. Applicants are further advised that the lined-through WO citations do not correspond to valid PCT publication numbers.

## Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Art Unit: 1713

- 3. The specification is objected to for the following reasons:
  - (a) The structures at the bottom of page 20 are overlapped and garbled.
- (b) The specification is objected to as failing to provide proper antecedent basis for the following claimed subject matter (See 37 CFR 1.75(d)(1) and MPEP § 608.01(o)): (i) the species octene as set forth in claim 2; (ii) the first three species in claim 10; (iii) both species of claim 12.

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 5. Claims 1-4 and 13-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Bres et al. (WO98/49208).

The reference discloses in Example 14 the polymerization of ethylene in methylene chloride using complexes 13.1 and 13.2 (see structures at pg. 16) which are within the scope of the complex from claim 1 corresponding to structure XIV, and this example discloses all limitations of claims 1-4 and 16. The run using catalyst 13.1 uses methylaluminoxane as activator.

Art Unit: 1713

Regarding claims 13-15, the cited examples inherently anticipate these claims because the discussion in applicants' specification at page 29, line 14 through page 30, line 12 implies that when using catalysts of the type claimed instantly, a Lewis acid compound would bind to a heteroatom which is pi-conjugated to a donor atom bound to a transition metal. The complex and Lewis acids described in the cited reference example clearly correspond to the criteria described by applicants. Furthermore, one of ordinary skill in the art would recognize that at least some degree of bonding would occur between the Lewis acid compound and the Lewis base site at the ring nitrogen which is not bound to the transition metal. A basis for asserting that the claimed properties regarding Lewis acid binding is inherent in the catalyst of the reference has been shown; accordingly, the burden of proof is shifted to applicants to show that the applied reference examples do not contain the claimed Lewis acid bonding.

Review of the CIP parent application reveals that this application is not entitled to the priority date of application 09/028,315 as regards structure XIV because this structure was not disclosed in the CIP parent.

# Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 1713

7. Claims 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bres et al. (WO98/49208).

The parent claims are discussed with respect to this reference above. The only elements missing from the cited examples are the use of a support and the use of gas phase conditions. However, the authors have disclosed that deposition of the catalyst on a support is preferred (page 7, lines 30-35) and have provided lengthy discussion of utilization under gas phase fluidized bed conditions (page 8, line 7 through page 9, line 18). Motivation exists to use these embodiments because the authors have stated that these embodiments are preferred, with reasonable success expected.

## Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 13-15 are rejected under the judicially created doctrine of obviousnesstype double patenting as being unpatentable over claims 41-46 of U.S. Patent No. 6,245,871. Although the conflicting claims are not identical, they are not patentably

Art Unit: 1713

patented. Specifically, the patented claims set forth the same limitations regarding monomers, binucleating/multinucleating ligands, group 8-10 transition metals, and Lewis acid binding, but the patented claims add additional structural limitations on the complex. Since a subgenus always "anticipates" a genus of greater breadth, the instant claims are not patentable on grounds of obviousness-type double patenting.

## Allowable Subject Matter

10. Claims 5-12, 17, 19, 21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art currently of record has not disclosed these particular species, and no motivation can be found to modify the prior art teachings to emerge with the claimed species.

#### Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rábago whose telephone number is (703) 308-4347. The examiner can normally be reached on Monday - Friday from 9:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for

Page 7

Application/Control Number: 09/776,984

Art Unit: 1713

the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Rob Rábago Examiner Art Unit 1713

RR November 2, 2002 Robert Pakay